

AD-A262 705



REPORT DOCUMENTATION PAGE

Form Approved
GMB No. 0704-01862. REPORT DATE
FEB 19863. REPORT TYPE AND DATES COVERED
final

4. TITLE AND SUBTITLE

A Cultural Resources Survey of the Ditch Bank Repair Project
Big Lake Floodway, Mississippi Co., AR

5. FUNDING NUMBERS

c 96X3112

6. AUTHOR(S)

Jimmy D. McNeil

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS

in house

8. PERFORMING ORGANIZATION
REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

Dept. of the Army
Memphis District Corps of Engineers
B-202 Clifford Davis Federal Bldg.
Memphis, TN 3810310. SPONSORING / MONITORING
AGENCY REPORT NUMBER

198

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION / AVAILABILITY STATEMENT

Unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

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98 4 05 008

93-07025



14. SUBJECT TERMS

15. NUMBER OF PAGES
3

16. PRICE CODE

17. SECURITY CLASSIFICATION
OF REPORT18. SECURITY CLASSIFICATION
OF THIS PAGE19. SECURITY CLASSIFICATION
OF ABSTRACT

20. LIMITATION OF ABSTRACT

198

A Cultural Resources Survey of the
Big Lake Floodway
Ditch Bank Repair Project, Mississippi County, Arkansas
A Negative Report

U.S. Army Corps of Engineers
Memphis District

Jimmy D. McNeil

DTIC QUALITY INSPECTED 4

February, 1986

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Accession For	
NTIS CRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

ABSTRACT

On 9 January 1986, an intensive cultural resources survey was conducted by the Environmental Analysis Branch of the U.S. Army Corps of Engineers, Memphis District, over approximately 0.46 acres of plowed field. The proposed work includes repair and maintenance of the existing ditch bank. Maintenance may include grading and riprapping the top bank. A pedestrian survey failed to locate any prehistoric, historic or architectural sites within the project right-of-way.

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Map 1	Overall view of project area
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Introduction

An intensive survey for cultural resources was conducted by Memphis District archeologist, Mr. Jimmy D. McNeil on 9 January 1986, within the ditch maintenance right-of-way as directed by the U.S. Army Corps of Engineers, Memphis District. This study was performed as required by the National Environmental Policy Act of 1969 (Public Law 91-190), Protection and Enhancement of Cultural Historic and Cultural Properties (36 CFR 800), and the National Historic Preservation Act of 1966 (Public Law 898-665).

Project Description

The Big Lake Ditch is located in Mississippi County, Arkansas, Township 14N, Range 9E, Section 21, NE 1/4, NE 1/4 of the NE 1/4 of the Manila, AR-MO Quadrangle. The project will affect only the proposed right-of-way and repair area (Map 1). Equipment can be brought in over an existing road.

Environmental Setting

The Big Lake area is characterized by cool, wet winters and hot, humid summers. Typically, winter rains last for several days duration and cover large areas, but lack the severity of summer storms. Summer thunderstorms are common but isolated and intense, causing localized flooding. The annual mean rainfall is 48 inches.

The soil association in this area is Convent-Morganfield-Crevasse (Ferguson and Gray 1971:4). On the surface, the soil is a fine brown sandy loam. The area is subject to seasonal inundation. The topography of the area is nearly level. However, natural and man-made levees rise above the surface.

The area of maintenance is a ditch bank and field, adjacent to the Big Lake Floodway Ditch. This area supports a profusion of Johnson grass (Sorghum halepense) and scattered willow, cottonwood, elm and other related species

on the fringe of the field. The quality of the "fringe" habitat in the immediate vicinity adjacent to the maintenance area is high for various small mammals and birds as well as numerous lower vertebrates.

Previous Research

Enough work has been conducted in the general area of the project, by such researchers as Phillips, Ford and Griffin (1951), Williams (1956), Morse (1969), Lewis (1974), and Klinger (1978), to isolate and date major cultural periods. However, little survey research has been conducted in the immediate vicinity of the project. The most recent intensive survey work in this area was conducted by American Resources Group, Ltd. (1981) for the Memphis District, U.S. Army Corps of Engineers.

Results of the Records Search

The National Register of Historic Places was consulted and no indications of prehistoric, historic or architectural cultural remains were on record within the project area.

Survey Methodology and Results

The designated project area is approximately 0.46 acres in size. The field was unplanted, providing an excellent view (100% visibility) of the plowed surface. This exposed surface area was searched for features and/or artifacts. As the project area was partially disturbed only the undisturbed portion was walked over. This area was approximately 15 meters wide and 150 meters long. The disturbed areas consisted of a road and old borrow pit. No artifacts nor features were found in the project area.

Recommendations

Based on an infield cultural resources survey and a background search, no evidence of prehistoric, historic or architectural resources exist within the direct impact zone of the borrow area. It is recommended that construction within the project right-of-way be allowed to proceed as planned.

The survey methodology used does not eliminate the possibility of encountering deeply buried sites. Therefore, it is recommended that any site encountered during construction be protected from further damage, by stopping construction until its significance can be determined by the Environmental Analysis Branch, Memphis District Corps of Engineers in conjunction with the Arkansas Office of the Arkansas Historic Preservation Program.

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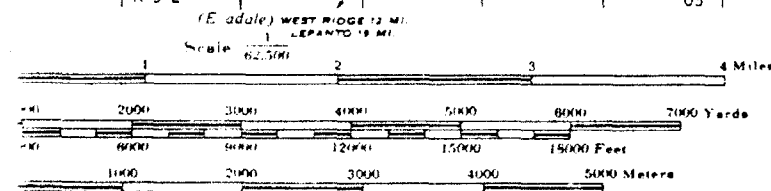
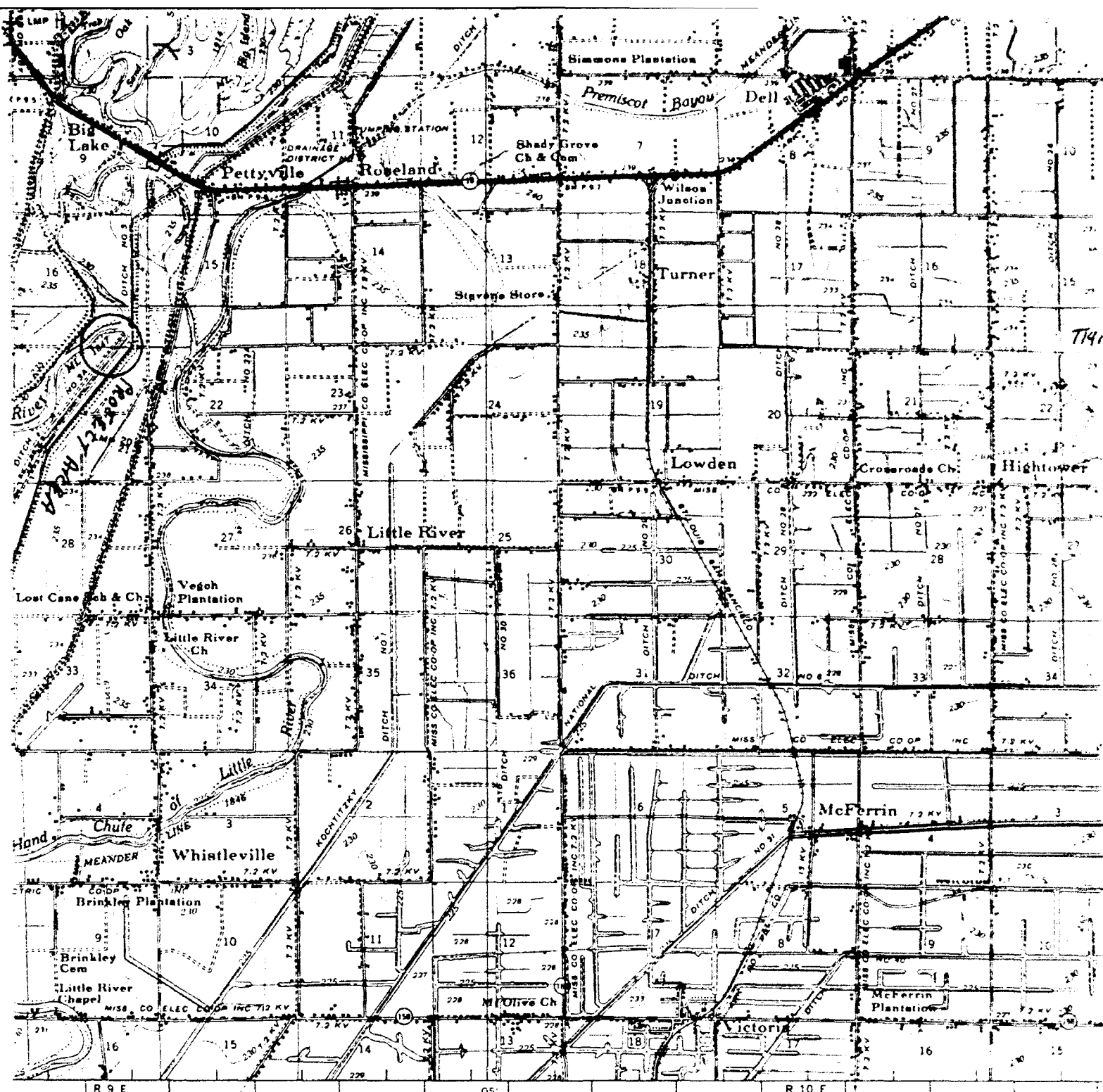
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Contour interval 5 feet
 DATUM IS MEAN SEA LEVEL
 HORIZONTAL METER UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 15
 IS INDICATED BY TICKS OUTSIDE OF THE HEATLINE
 KANSAS STATE GRID ZONE NORTH IS INDICATED BY DOTTED TICKS
 OUTSIDE THE HEATLINE AT 1500 FOOT INTERVALS

GEOLOGICAL SURVEY DENVER COLORADO 80225 OR RESTON VIRGINIA 22092
 GEOLOGICAL COMMISSION LITTLE ROCK ARKANSAS 72204
 DEPARTMENT OF NATURAL RESOURCES ROLLA MISSOURI 65401
 MISSISSIPPI RIVER COMMISSION VICKSBURG MISSISSIPPI 39180
 LISTING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



LEGEND

Levee		Levee mile post
Secondary Levee		Levee station
Retards and dikes		Towhead
Revetment		River Gate

ROAD DATA 1952

In developed areas only through roads are classified

Hard surface heavy duty		PLANNED LANE
Hard surface medium duty		PLANNED LANE
Loose surface graded and drained		
or narrow hard surface road		
Improved dirt road or street		
Unimproved dirt road or trail		

Route markers Federal, State

MANILA ARK M
 EDITION OF 1956
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